

ATTACHMENT 1

STATEMENT OF WORK

## Statement of Work

SUPPORT FOR POLICY DEVELOPMENT, ANALYSIS AND INFORMATION DEVELOPMENT,  
COMMUNICATIONS STRATEGY DESIGN, EDUCATION AND OUTREACH PRODUCTS, AND DISSEMINATION  
OF GUIDANCE ON INDOOR ENVIRONMENTAL QUALITY ISSUES

### BACKGROUND:

Title IV of the Superfund Amendments and Reauthorization Act of 1986 (SARA) gives the Environmental Protection Agency (EPA) broad authority to conduct and coordinate research on indoor air quality, develop and disseminate information on the subject, and coordinate efforts at the federal, state, and local levels.

Title III of the Toxic Substances Control Act (TSCA) directs EPA to undertake a variety of activities to address the public health risks posed by exposures to indoor radon. The law directs EPA to study the health effects of radon, assess exposure levels, set an action level and advise the public of steps they can take to reduce exposure, evaluate mitigation methods, institute training centers to ensure a supply of competent radon service providers, establish radon contractor proficiency programs, and assist states with program development through the administration of a grants program.

The Indoor Environments Division (IED) in the Office of Radiation and Indoor Air (ORIA) is responsible for a broad range of voluntary activities designed to support the development and implementation of national policies on indoor air quality. The primary objective of the Indoor Environments Program (hereinafter, "the Program") is to protect the public health by promoting healthier indoor environments. To achieve this goal, the Program establishes and carries out Agency policy on indoor environments by:

- identifying the sources, health effects, and health risks of exposure to contaminants and conditions indoors, using the best available science;
- carrying out risk management studies;
- supporting the development of data on indoor contaminant sources, exposures, and health risks when information gaps exist;
- developing, implementing, and/or recommending control strategies which can diagnose, prevent, abate, and/or mitigate indoor contaminants;
- developing and disseminating guidance on aspects of building design, construction, operation, and maintenance that affect the indoor environment;
- providing technical assistance to state and local governments seeking to develop capabilities to respond effectively to indoor air quality problems and to private sector entities offering identification or abatement services to the public;
- working with regulatory programs within EPA and other Agencies that have the authority to prohibit or otherwise restrict products which could exacerbate unhealthy levels of exposure; and



developing and disseminating information to educate key audiences, both domestic and international, about indoor air pollution and its associated health risks, mitigation, and control strategies;

designing innovative community leadership, social marketing, market transformation strategies that may be applied to specific audiences.

The Program serves as a catalyst for action by guiding research, using innovative and creative risk communication tools to spur individual and societal behavioral change, and building public-private partnerships to achieve indoor pollutant exposure risk reduction. IED is also the (EPA) lead office for intra- and interagency activities coordinated through the Committee for Indoor Air Quality (CIAQ).

Currently, the Program focuses on several critical aspects of indoor air quality that pose significant risks to public health, and in particular, to children and to other disproportionately impacted segments of society. These priority areas include:

#### Asthma

An estimated 20 million people in the United States have asthma, including 6 million children. The number of children with asthma has more than doubled since 1980. In addition, there are disturbing and significant racial and ethnic disparities in asthma morbidity and mortality in the United States; African-Americans continue to have higher rates of asthma emergency room visits, hospitalizations, and deaths than Caucasians.

While the mechanisms that cause asthma are complex and prevalence rates vary among population groups, there is substantial evidence that indoor exposures to irritants such as environmental tobacco smoke (ETS) and allergens from house dust mites, pests, molds, and animals play a significant role in triggering asthma episodes, and, in some instances (ETS and dust mites), are causally linked to the development of the disease.

As part of a coordinated federal strategy to reduce the environmental factors contributing to asthma attacks among children in the U.S., EPA plays a significant role in ensuring that environmental factors are addressed as part of a comprehensive asthma management program. Through these efforts, EPA strives to improve environmental health outcomes for people with asthma -- including segments of the population that are disproportionately impacted such as children and low-income individuals by: 1) increasing knowledge of the importance of working with a doctor, developing an asthma action plan, and identifying personal asthma triggers; 2) fostering acquisition of new skills and behavior changes to reduce exposure to environmental asthma triggers in the home, school and/or workplace; and 3) impacting the type and quality of care provided to people with asthma. To accomplish this, EPA works directly with people with asthma as well as with a variety of stakeholders, including health care providers, commercial and public health insurers, state agencies, child care and school personnel, community-based organizations, and coalitions.

#### Schools

According to the U.S. Department of Education's National Center for Education Statistics, in 1999 43% of America's public and private schools reported at least one unsatisfactory environmental condition impacting IAQ. Further, reports from



the U.S. General Accountability Office indicate that public K-12 schools in the U.S. need guidance about how to identify, prevent, and correct environmental problems in school buildings that can impact the health and comfort of students and staff. These problems are often related to improper operation, deferred maintenance of building facilities, as well as poor design, construction and/or renovation practices. Poor IAQ can impact the comfort and health of students and staff, which in turn can affect performance, concentration and attendance.

EPA's goal is to ensure good IAQ management practices are used in K-12 public and private schools nationwide and promote holistic approaches that help schools address the entire range of environmental issues that they face. EPA has developed the voluntary Indoor Air Quality Tools for Schools (IAQ TFS) Action Kit in response to complaints of poor indoor air quality in schools. Similarly, EPA has developed the web-based IAQ Design Tools for Schools to assist school facility planners, designers and others involved in the planning and construction of school facilities in creating high performance school facilities that provide superior indoor air quality while saving energy and resources. EPA has also developed a unique software tool, Healthy School Environments Assessment Tool (Healthy SEAT) to help school district's establish and manage comprehensive voluntary school facility self-assessment programs. As part of the the IAQ TFS Program, EPA offers specialized training and recognition opportunities, such as the IAQ TFS Awards Program and National Mentor Program, and produces education and outreach documents to raise awareness about the importance of good IAQ practices. Together, these tools and resources can be used by school districts to design, build, maintain and continually assess their school facilities for key environmental, safety and health issues and protect the health and safety of children and staff.

#### Radon

Since the mid-1980s the United States has made significant progress in reducing the risk from exposure to radon. This progress is the result of a long-term effort between EPA, citizens, non-profit organizations, state and local governments, the business community, and other Federal agencies working together. More adult Americans are knowledgeable about radon than at any time since the mid-1980s, when radon became a national health concern. Approximately two-thirds (66%) of Americans are generally aware of radon, and of those, three-quarters (75%, on average) understand that radon is a health hazard. Since the mid-1980s, about 18 million homes have been tested for radon and about 500,000 of them have been mitigated. Approximately 1.8 million new homes have been built with radon-resistant features since 1990. EPA continues to focus its efforts, and those of its partners, which include State radon programs supported by State Indoor Radon Grants, non-profit environmental health advocacy organizations, home builders, and the radon service industry, on achieving actual risk reduction through the mitigation of existing homes and the building of new homes to be radon-resistant.

#### Environmental Tobacco Smoke

Environmental tobacco smoke poses risks to all segments of the population; however children are especially vulnerable because they are still growing and developing. Exposure to environmental tobacco smoke causes serious health effects in children, including bronchitis, pneumonia, ear infections, asthma, and has been associated with sudden infant death syndrome. For children, particularly young children, the most likely place of exposure is their home. In the U.S., 11% of homes with children aged six and younger currently allow smoking.

EPA has a multi-prong program that focuses on reducing children's exposure



to ETS by: 1) increasing the knowledge of the harmful health effects from children's exposure to ETS; 2) promoting individual behavior changes to create and sustain smoke-free environments for children, including homes, cars, child care facilities, schools and other environments where children spend time; and 3) sustaining current and building new institutional systems that support and encourage smoke-free environments for children through national social services agencies, health care systems, and other child-focused organizations. EPA uses a number of channels to deliver the education and encourage behavior change including health care providers, schools, child care centers, community-based organizations/coalitions, parent groups, and state, local, and federal agencies. EPA focuses on raising awareness and action in low-income, low-education populations.

#### Homes

Some of the major indoor air contaminants found in homes include radon, environmental tobacco smoke, mold, irritant and allergenic asthma triggers, combustion by-products and volatile organic compounds (VOC's) released from cleaning products, building materials, and furnishings. People spend 60% or more of their time in their homes, more than in any other building type and therefore may be potentially exposed to many of these contaminants for extended periods of time. In addition to consumer targeted programs related to IAQ in Homes (i.e. Asthma and ETS), and the Radon program described above, EPA has also targeted home building professionals to help the homebuilding industry to design, build, and sell homes with features designed to reduce the risks associated with these major indoor air contaminants in homes. EPA recently developed a companion label to the ENERGY STAR for homes label, referred to as ENERGY STAR Indoor Air Package.

Indoor Air Package is offered through the proven ENERGY STAR for Homes program, which has resulted in voluntary ENERGY STAR labeling of over 700,000 new homes. The technical specifications for the Indoor Air Package are available on the Internet at: <http://www.energystar.gov/homes>. These specifications illustrate EPA's primary IAQ concerns in homes, and proposed best practices for meeting these concerns.

#### Large Buildings

Indoor air quality (IAQ) problems are not limited to homes. Many office buildings have significant air pollution sources. Some of these buildings may be inadequately ventilated. For example, mechanical ventilation systems may not be designed or operated to provide adequate amounts of outdoor air, and buildings may not be maintained in a manner that promotes healthy indoor air quality. People generally have less control over the indoor environment in their offices than they do in their homes. The Program has designed a number of tools for building owners and managers to better understand how their buildings operate to provide an indoor environment for occupants, and how that environment can be improved to create healthier, more productive spaces for them. In particular, the division has developed several guidance documents and tools to help building professionals to help improve indoor air quality in buildings they design, build and maintain.

In addition the program has worked collaboratively with Energy Star Programs to promote the compatibility to improved indoor air quality and energy efficiency.

#### Other relevant topics

Recent terrorist events have increased concern about the vulnerability of workplaces, schools, residences, and other occupied buildings to threats. The



Agency continues to build on its experience and historical ties to the buildings community to ensure that the information they need to help protect building occupants is developed and disseminated in an effective manner.

An international initiative, the Partnership for Clean Indoor Air, was launched by the Administrator of EPA at the World Summit for Sustainable Development in Johannesburg, South Africa in August, 2002. The objective of this Partnership is to increase access to safe, reliable, and affordable heating and cooking practices in developing countries. An estimated 2 billion people in the developing world burn traditional biomass fuels indoors, and according to the World Health Organization, the resulting levels of indoor air pollution contribute to 2 million premature deaths each year, primarily affecting women and children. The Division is leading an effort to address this issue by bringing governments, non-government organizations, and the private sector together to focus on four core dimensions of the problem: addressing social and cultural barriers to change; promoting market development to create sustainable local industries; developing design and performance criteria for cooking and heating technologies; and identifying priority research needs to improve understanding of exposure and health effects.

EPA has been engaged in supporting "integrated air toxics", community-based pilot project and has plans to extend this type of program to additional communities in the future. As an integral part of any community-based focus on reducing citizens' exposure to airborne toxics, the Indoor Environments Program will be an active participant in both the planning and implementation of future projects.

#### Quality Assurance

The contractor shall implement a Quality Management System conforming with ANSI/ASQC E4-1994 (revised 2004). This system shall be applied to all environmental programs that include direct measurements, data generation, environmental modeling, compilation of data from literature or electronic media, and data supporting the design, construction, and operation of environmental technology.

#### STATEMENT OF WORK (SOW):

The contractor shall furnish the necessary personnel, materials, equipment, services and facilities (except as otherwise specified), to perform the following Statement of Work/Specifications.

In meeting the requirements of this SOW, the Contractor shall be in a support role, and will not, under any circumstances, be involved in the development of EPA policy, or in any activity that is construed as "inherently governmental functions."

The contractor shall submit for review and obtain approval from the EPA Project Officer/Work Assignment Manager prior to use or dissemination of any and all manuals, technical documents, and outreach materials (to include all training and workshop materials).

#### A. Support for the Development of Indoor Air Quality Policy

##### 1. Background/General

Support for the development of new, science-based indoor air quality policies



and program strategies, and evaluation of existing program implementation strategies. The contractor shall provide analytic services, including cost-benefit and/or other economic analyses, market penetration assessments, etc., to evaluate the effectiveness of current Agency policies on indoor environmental quality and provide recommendations for improvements.

## 2. Work Areas

(a) The contractor shall provide support in identifying, compiling, and/or analyzing existing scientific evidence on indoor air related issues including the causes and effects of indoor air quality problems that pose risks to human health, comfort, and productivity, and strategies for their control.

This may include literature searches, contact with professionals in the public sector, e.g., state and local environmental and public health officials, professionals and other service providers in the private sector, and the development of summary reports.

(b) The contractor shall provide support in identifying successful national, state, or local approaches to the reduction of exposure to indoor air contaminants, including the development or analysis of legislative proposals and voluntary initiatives.

## B. Support for Analysis and Information Development

### 1. Background/General

Support to analyze, disseminate, support, and/or develop information and materials on indoor air quality related issues.

### 2. Work Areas

(a) The contractor shall provide technical and analytical support on indoor air related issues. Support may include literature search, literature retrieval, analysis of indoor air related issues including emerging issues, contact with indoor air quality subject matter experts on technical/scientific/professional issues, and technical support on indoor pollutant assessment/mitigation/control/outreach.

(b) The contractor shall provide support to determine through surveys or other measures the extent of awareness of indoor air quality issues and the extent to which actions have been taken to prevent or mitigate indoor air quality problems.

(c) The contractor shall provide support in performing studies and comparative evaluations of various indoor air quality management options. Evaluations may include cost effectiveness analysis.

(d) The contractor shall provide technical and analytical support in the development of tools to track results and/or outcomes of EPA's indoor air quality programs, such as databases or spreadsheets of contact information.

(e) The contractor shall provide support in development, revision, and/or dissemination of professional, technical, or scientific materials, publications, information, web pages/websites, interactive websites, webinars, computer-based systems, displays, and/or software. Support may include support for technical/scientific meetings or conferences, outreach to



scientists/professionals/technical experts, and writing, editing, and/or analysis. Support may include the development of/obtaining drawings, graphics, and/or photographs related to technical/analytic or scientific material/information.

(f) The contractor shall conduct research, perform analyses, evaluations and comparisons, and develop options related to approaches that are or could be employed by the government and the private sector in allocating State Indoor Radon Grants (SIRG) grant funds to recipients (states and tribes) for the purpose of radon risk reduction.

C. Support for the Development and Implementation of Communications and Marketing Strategies

1. Background/General

Support for developing effective methods to communicate with the general public and with specified target audiences, domestically and internationally, such as: school decision makers, parents, school-based personnel; health care providers, asthma patients and their care givers; parents and public health advocates concerned about children's exposure to secondhand smoke; homeowners, home buyers and sellers, renters, code officials, and the real estate and building industries regarding the health impacts of radon exposure and other indoor air pollutants; building owners and managers concerning proper design, construction, operation, and maintenance of buildings for healthy indoor air quality and reduced vulnerability to intentional releases of biological or chemical contaminants; health care industry regarding incorporation of environmental controls into standards of care; and other audiences with whom the Program may choose to communicate messages concerning risk reduction in the indoor environment.

2. Work Areas

(a) The contractor shall provide support and assistance in the development of plans to support outreach activities to educate the general public and target audiences including school communities, patients with asthma, medically under-served and high risk populations, health professionals, building design and management professionals, home building professionals, and other groups, about health risks and impacts on comfort and productivity posed by exposure to indoor contaminants and conditions and steps they can take to reduce their exposure. Support may include consultation with experts in specific indoor air quality subject areas such as asthma, school design and operation, home building, building construction and maintenance, radon industry representatives, and professionals involved in outreach, communications theory, and related subjects.

(b) The contractor shall provide support to analyze the available body of knowledge concerning the nature and extent of the indoor air quality issue being addressed and its impact on specific populations.

(c) The contractor shall provide technical support in the design, implementation, and distribution of communications strategies for national campaigns on various IAQ issues in order to increase public awareness concerning indoor air quality health risks and exposure reduction strategies.

(d) The contractor shall provide technical support to design, implement, and promote a national media campaign on various indoor environments issues.



(e) The contractor shall provide technical support in identifying effective methods of information transfer, including written, graphic, multi-media, audio-visual, and electronic formats, for specific products. Editorial, layout, graphics, presentations, and related publication development support for technical and non-technical information products shall also be provided.

D. Support for Education and Outreach Product Development and Dissemination

1. Background/General

Public demand for knowledge about indoor environmental problems, including their health risks and the means by which human exposure can be reduced, has been fueled by a growing body of scientific information confirming the adverse impacts of poor indoor air quality on health, comfort, and productivity. The Program recognizes the need for a variety of audiences to understand these risks and to be informed about available methods for risk reduction.

As a voluntary program, two of the main objectives of the Program are to: (1) develop and disseminate information, including technical and non-technical guidance; and (2) conduct education and outreach activities that will inform a broad range of potential users - the general public; building design, construction, and management professionals; private sector diagnostic and mitigation firms; industry associations; environmental researchers and experts; indoor environments educators; EPA program partners; public health and advocacy organizations; health practitioners; environmental health officials at Federal, state, and local levels; and related groups.

2. Work Areas

(a) The contractor shall provide support in the development and implementation of information, guidance, and other outreach materials, including paper, multi-media, and electronic formats, to be disseminated to target audiences such as the public, school officials, health care providers and insurers, building owners, facility managers, design and construction professionals and personnel, indoor air quality service providers, real estate professionals, code officials, and others.

(b) The contractor shall provide support in analyzing the existing body of knowledge in specified areas of indoor air quality concern.

(c) The contractor shall provide support in the design and development of guidance for a range of target audiences concerning improvements in indoor air quality.

(d) The contractor shall provide support in the development and implementation of programs to train specific targeted audiences on effective design, maintenance and management for improved indoor air quality, e.g., school personnel, building owners and managers, and home building professionals.

(e) The contractor shall provide support in assessing the effectiveness of current information and guidance, including training courses and strategies, and propose curricula to meet training requirements and continuing education needs of various public and private sector audiences.

(f) The contractor shall provide support in assessing the economic



and institutional barriers to change that must be addressed in program strategies to improve indoor air quality.

(g) The contractor shall provide support in assessing state and local indoor air quality activities, e.g., outreach and education programs, information products, legislative initiatives, state and local codes, building and product labeling and rating programs (e.g., Green) and may be called upon to develop model indoor air programs for adoption at the state or local level.

(h) The contractor shall provide support in the development, implementation, and/or maintenance of web site pages, computer-based systems, and databases for dissemination of key indoor air related program information via Internet public access.

(i) The contractor shall provide support in the development, implementation, maintenance, modification, marketing, and/or end-user support of EPA software tools that provide indoor air quality guidance to a variety of audiences.

(j) The contractor shall provide technical support to the EPA Partner Network (EPA Regions, states, national partner groups, field affiliates, and other funded and unfunded partners) through outreach materials and related activities as specified in individual work assignments.

(k) The contractor shall provide support in developing recommendations for studies to evaluate consumer response to indoor air quality public information materials and programs as specified in individual work assignments.

(l) The contractor shall provide support by attending conferences or meetings where indoor air quality is a topic, as specified by EPA. This support may include attending conferences, trainings, meetings, technical forums, etc., to take notes and report relevant information back to EPA; it may include making technical or non-technical presentations as a contractor representing EPA; it may require staffing information booths and/or disseminating EPA information materials. The contractor may also be tasked to reserve booth space at conferences, and ship EPA information booths and related materials.

(m) The contractor shall provide support in developing, writing, and/or editing articles for magazine, newspapers, trade journals, scientific journals/publications, etc., and creating related graphic and multi-media support for target technical and non-technical audiences through various mechanisms, for example but not limited to, websites, internet, computer-based systems, published media, etc.

(n) The contractor shall provide support in analyzing, developing, drafting, and/or editing code change proposals as they relate to indoor air quality issues including radon.

(o) The contractor shall provide support in the analysis and/or development of economic analyses including cost/benefit analyses for indoor air quality mitigation and/or prevention approaches in new construction and in building renovation, including residences, schools, and commercial/institutional buildings.

(p) The contractor shall support the development and analysis of



options for allocating any Federal grant funds available to States and local communities for indoor air quality activities based on factors including: population, risk, program activity, and program results and provide support in the implementation and tracking of such allocation approaches.

(q) The contractor shall support the development and implementation of recruitment efforts for targeted institutions such as members of K-12 schools/school districts (or school-related associations), or other such targeted audiences as specified by EPA.

E. Facilitation and/or Logistical Support for Meetings, Trainings, Conferences, Workshops

1. Background/General

The Program works with Agencies and organizations at the Federal, state and local level, with other nations, and with a range of domestic and international stakeholder and target audience groups, to promote more effective approaches to identifying and solving indoor environmental problems as well as applying community leadership and social marketing techniques to accelerate environmental risk reduction results. To provide effective communication, the Program may initiate meetings, training, conferences, events, or workshops, or work collaboratively with others to do so.

2. Work Areas

The contractor shall provide support in the following work areas:

(a) Arrange, facilitate, and/or conduct meetings involving contractor personnel, government personnel, and other involved parties through various mechanisms, for example but not limited to, webinars, inter-active websites, computer-based systems, etc.

(b) Plan, coordinate, and provide logistical support (e.g. but not limited to, staffing, venue, meeting rooms, webinars, interactive websites, computer-based systems, audio-visual equipment and services, telephone links, etc.).

(c) Record and produce minutes, and provide other similar meeting support, through but not limited to webinars, interactive websites, computer-based systems, etc.

(d) Design innovative community leadership and social marketing strategies that may be applied to specific audiences through but not limited to webinars, interactive websites, computer-based systems, etc.

(e) Facilitate meetings using community leadership and social marketing techniques through but not limited to face to face, webinars, interactive websites, computer-based systems, etc.

F. Graphic Support

1. Background/General

Among the key responsibilities of the Indoor Environments Divisions are the development and dissemination of publications and other outreach materials

and the live presentation of both substantive and organizational information to a variety of audiences.

2. Work Areas

The contractor shall provide technical support by developing or securing graphics for presentations and products. These products may include but not limited too, websites, webinars, interactive websites, computer-based systems, fact sheets, brochures, booklets, and may be requested in hard copy, in a specific computer software application, in video, CD-ROM, DVD, or other formats.